



Brunsing Associates, Inc.

February 22, 2006

Project No. 617

Ms. Cliff Ives
Sonoma County Department of Health Services
Environmental Health Division
475 Aviation Boulevard, Suite 220
Santa Rosa, California 95403

**Project Summary Report
18155 Sonoma Highway
Boyes Hot Springs, California**

Dear Mr. Ives:

This report presents a summary of the tasks performed at 18155 Sonoma Highway, Boyes Hot Springs, California (Plates 1 and 2), in preparation for site closure. Abandonment of the monitoring wells at the site was requested by the Sonoma County Department of Health Services – Environmental Health Division (SCDHS-EHD) in their letter dated November 8, 2005.

Site History

Standard Oil built and occupied a gasoline service station with underground fuel tanks in the center of the property in the mid-1940's. The site was used as a service station for an auto dealership/repair shop until its closure in 1965, according to a Van Houten Consultants, Inc. (Van Houten) report titled, "Discharge Evaluation for Removal of Buried Fuel Tanks," dated December 22, 1986. In the December 1986 report by Van Houten, the Site Plan indicates that the site initially contained six underground storage tanks: four fuel tanks (three 2,000-gallon tanks and one 5,500-gallon tank), a 500-gallon waste oil tank, and a concrete septic tank. The service station pump island was located on the west side of the site, adjacent to Sonoma Highway. According to Ms. Millie Gallo, a pump station was also present on the easterly side of the site, primarily for family use. In December 1986, Van Houten reported that the fuel tanks had not been in use for 20 years, and that the waste oil tank had not been used for six years.

The fuel tanks were emptied of liquid on May 21, 1986 by Fuel Oil Polishing Company-Bay Area of Sonoma, California, as stated in Van Houten's report titled "Quarterly Ground Water Sampling and Downgradient Hydrogeologic Investigation," dated April 30, 1993. Two soil borings were drilled on June 5, 1986 to the northeast and southwest of the fuel tanks; the soil samples were

analyzed by Anatec Laboratories. The analytical results indicated that the soil samples from boring 1 contained none of the analytes. The soil samples collected from boring 2 contained total petroleum hydrocarbons (TPH) as gasoline concentrations at 530 parts per million (ppm) at 7 feet below ground surface (bgs) and 14 ppm at 12 feet bgs.

The tanks were removed from two excavations on October 27, 1986 by Hammond Construction of Sonoma, California. The tanks were hauled away from the site by H&H Ship Service of San Francisco, California. Samples collected from the volcanic bedrock below the gasoline tanks ranged in concentrations from 18 to 390 ppm of TPH as gasoline. Volcanic bedrock samples collected from below the waste oil tank were reported to contain 22 to 760 ppm of "total heavy hydrocarbons".

Composite samples from the excavated materials contained concentrations ranging from 440 to 890 ppm of TPH as gasoline. The excavated materials were stockpiled on site and were fenced and aerated for approximately 4 months. According to Van Houten's April 30, 1993 report, the material was returned to the excavation, upon approval by Mark Sullivan of the SCDHS-EHD, and additional clean fill was imported to bring the excavation up to grade on April 25, 1987.

Van Houten prepared an "Initial Hydrogeologic Investigation" report, dated April 15, 1991. The report provides a well survey for the area, a discussion of the drilling of borings 1 and 2, and the installation of groundwater monitoring wells MW-1 through MW-4.

Soil samples collected during the drilling of the borings and well boreholes were analyzed for TPH as gasoline, TPH as diesel, TPH as motor oil, non polar oil and grease, benzene, toluene, ethylbenzene, and xylenes (BTEX), chlorinated hydrocarbons, organic lead, and for five metals (nickel, cadmium, chromium, lead and zinc). The results of the soil analyses indicated that petroleum hydrocarbon contamination in soils existed at monitoring well MW-1 at six and 11 feet bgs, and in boring 1 at five feet bgs. No chlorinated hydrocarbons or metals greater than the total threshold limit concentrations were reported.

Quarterly groundwater monitoring and monthly groundwater elevation measurements were initiated at the site in March 1992; an initial groundwater monitoring round was also performed in March 1991 after the well installations. The results of the groundwater monitoring are provided in Van Houten's report titled, "Quarterly Groundwater Sampling and Downgradient Hydrogeologic Investigation." The groundwater analytical results reported between March 1991 and March 1993 indicate that the highest levels of petroleum hydrocarbons were occurring in monitoring well MW-1, with 400 parts per billion (ppb) of TPH as gasoline as the highest concentration.

In April 1993, approximately 700 cubic yards of contaminated soil were removed from the site. The area of the excavation was along the west side of the property, in the vicinity of monitoring well MW-1, which was abandoned. The depth of the soil excavation ranged from 20 feet at the northeast corner to 9.5 feet along the west wall to 5 feet at the south end of the excavation. Details



of the soil excavation are provided in Van Houten's report titled, "Soil Excavation," dated June 14, 1993.

One groundwater monitoring event was completed in September 1993, after removal of the excavated soil. The next groundwater monitoring event occurred in January 1999, with monitoring continuing to the present. In December 2001, BAI drilled four soil borings (BB-1 through BB-4). The results of the drilling activities are discussed in BAI's report titled, "Soil and Groundwater Investigation," dated July 17, 2002.

Exploratory borings BB-8 and BB-9, and boring BB-7 were drilled on October 14, 2004 and October 15, 2004. The results of the drilling are presented in BAI's "Further Site Investigation Report", dated December 27, 2004. Historical analytical data and groundwater elevations for the site are included in Appendix A.

Monitoring Well Abandonment

As required by the SCDHS-EHD in their letter dated November 8, 2005, BAI prepared a workplan for the abandonment of on site monitoring wells MW-2, MW-3, and MW-4. The workplan was dated November 22, 2005.

On December 9, 2005, monitoring wells MW-2, MW-3, and MW-4 (Plate 2) were abandoned by Clear Heart Drilling, as part of the site closure process. A permit for abandonment of the wells was obtained from the SCDHS-EHD. Underground Services Alert (USA) was notified and underground utilities cleared before initiating drilling activities. The wells were abandoned by Clear Heart Drilling, Inc., of Santa Rosa, California, a licensed C-57 drilling contractor. Each of the wells was abandoned by over-drilling the well casing with hollow-stem augers to remove as much of the well casing materials as possible. After the well materials had been drilled out, the borehole was sealed, from the bottom of the borehole to near surface using a tremie pipe, with a cement grout/bentonite slurry mixture to seal off the groundwater from the surface and eliminate any potential contaminant pathways to groundwater. The borehole backfilling was completed from the top of the cement grout/bentonite slurry mixture to surface grade by placing concrete in each borehole to match surface grade. The soil generated during abandonment of the wells was temporarily stored on site in 55-gallon drums. A letter from Clear Heart Drilling documenting abandonment of the wells is included in Appendix B.




Mr. Cliff Ives
February 22, 2006
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Generated Waste Disposal

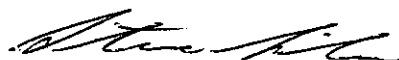
Following the abandonment of the three monitoring wells, six drums of generated soil and decontamination water from the well abandonment activities and purged groundwater from previous sampling of the monitoring wells, were removed from the site and properly disposed of by Integrated Waste Management (IWM). Copies of the Certificates of Disposal for the drums of soil and water are included in Appendix C.

Should you have any questions regarding this report, please contact us at (707) 838-3027.

Sincerely,


Diana M. Dickerson, P.G., R.E.A.
Principal Geologist





Steve Silva
Project Geologist

cc: Ms. Millie Gallo
Ms. Teri Gallo



LIST OF ATTACHMENTS

Plate 1. Site Vicinity Map

Plate 2. Site Map

Appendix A. Historical Results Documents

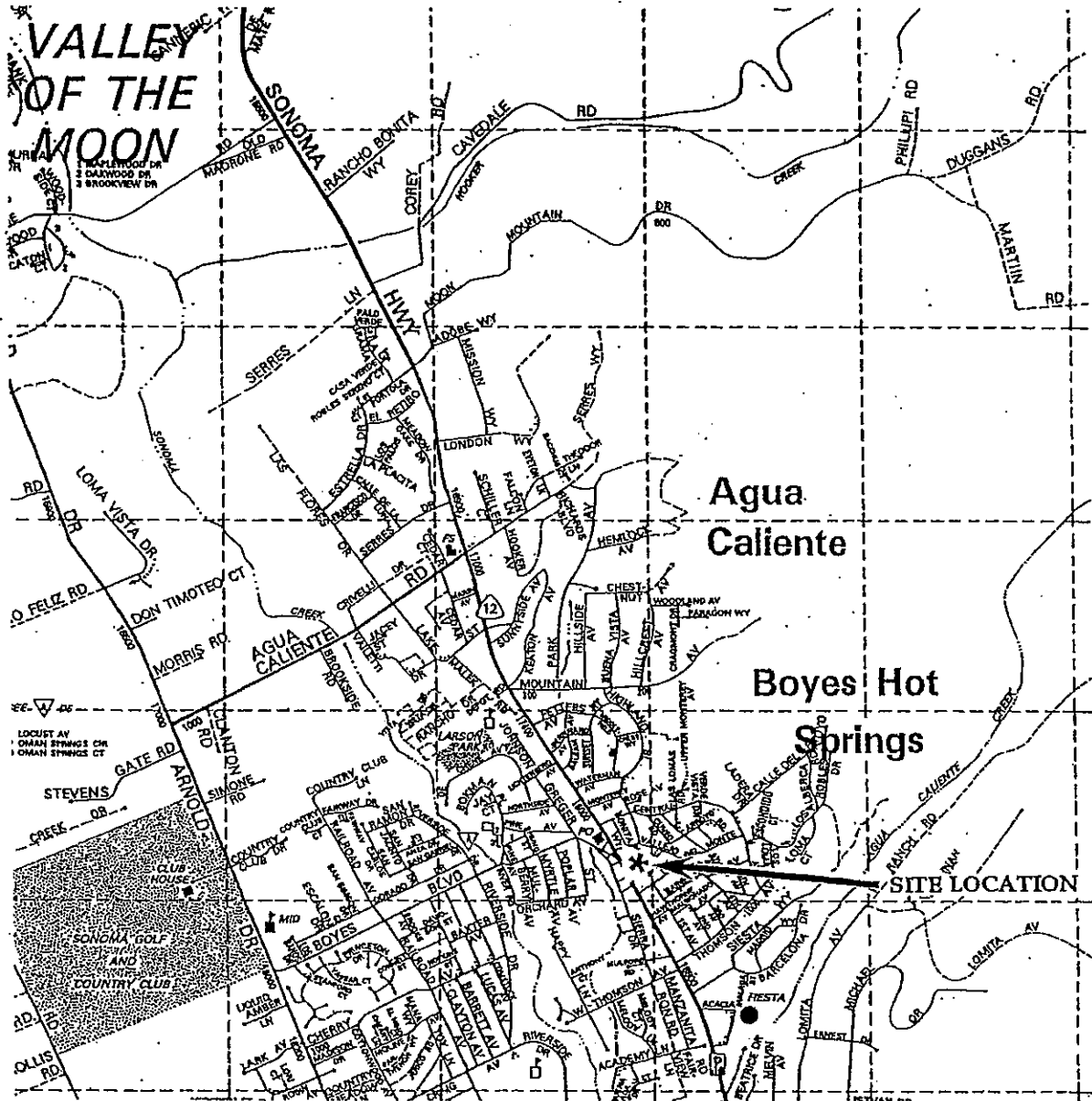
Appendix B. Clear Heart Drilling Letter

Appendix C. Copies of the Certificates of Disposal

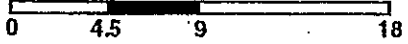


PLATES





APPROXIMATE SCALE
(miles)



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Association

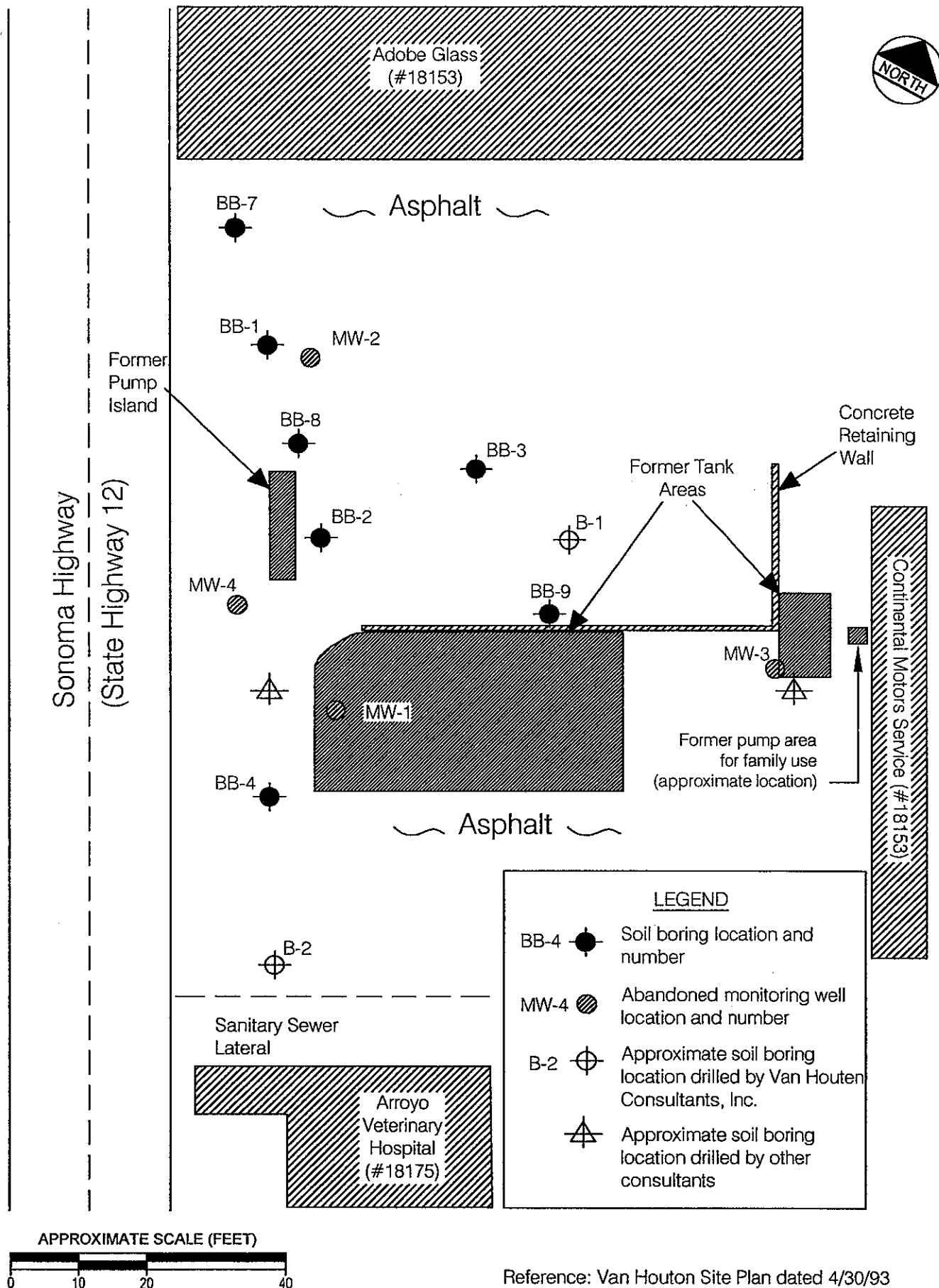


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Job No.: 617.003
Appr.: *MEF*
Date: 05/13/03

SITE VICINITY MAP
18155 Sonoma Highway
Boyes Hot Springs, California

PLATE
1



Brunsing Associates, Inc.
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Job No.: 617

Appr.: *[Signature]*

Date: 2/22/06

SITE MAP
 18155 Sonoma Highway
 Boyes Hot Springs, California

PLATE

2

APPENDIX A

Historical Results Documents



TABLE 1.
GROUNDWATER ELEVATION DATA
 18155 Sonoma Highway
 Boyes Hot Springs, California

Well Number	Date Measured	Top of Casing Elevation (Feet)	Depth to Groundwater (Feet below TOC)	Groundwater Elevation (Feet, MSL)	Groundwater Flow Direction and Gradient (ft/ft)
MW-2	1/8/1999	134.03	13.42	120.61	Northwest 0.028
MW-3	1/8/1999	141.09	19.19	121.90	
MW-4	1/8/1999	133.55	11.94	121.61	
MW-2	5/11/1999	134.03	10.79	123.24	Northwest 0.019
MW-3	5/11/1999	141.09	16.64	124.45	
MW-4	5/11/1999	133.55	9.75	123.80	
MW-2	1/16/2002	134.03	7.91	126.12	Southwest 0.055
MW-3	1/16/2002	141.09	12.82	128.27	
MW-4	1/16/2002	133.55	8.90	124.65	
MW-2	9/18/2002	134.03	25.64	108.39	--
MW-3	9/18/2002	141.09	dry	--	
MW-4	9/18/2002	133.55	22.40	111.15	
MW-2	12/12/2002	134.03	23.05	110.98	--
MW-3	12/12/2002	141.09	dry	--	
MW-4	12/12/2002	133.55	15.46	118.09	
MW-2	3/13/2003	134.03	10.42	123.61	Southwest 0.041
MW-3	3/13/2003	141.09	15.13	125.96	
MW-4	3/13/2003	133.55	10.91	122.64	
MW-2	6/13/2003	134.03	13.53	120.50	Northwest 0.024
MW-3	6/13/2003	141.09	20.13	120.96	
MW-4	6/13/2003	133.55	12.14	121.41	
MW-2	9/30/2003	134.03	24.74	109.29	--
MW-3	9/30/2003	141.09	dry	--	
MW-4	9/30/2003	133.55	21.78	111.77	
MW-2	3/5/2004	134.03	7.06	126.97	--
MW-3	3/5/2004	141.09	12.90	128.19	
MW-4 ⁽¹⁾	3/5/2004	133.55	8.56	124.99	
MW-2	8/23/2004	134.03	25.26	108.77	Northwest 0.129
MW-3 ⁽²⁾	8/23/2004	141.09	22.01	119.08	
MW-4	8/23/2004	133.55	22.32	111.23	



TABLE 1.
GROUNDWATER ELEVATION DATA
 18155 Sonoma Highway
 Boyes Hot Springs, California

Well Number	Date Measured	Top of Casing Elevation (Feet)	Depth to Groundwater (Feet below TOC)	Groundwater Elevation (Feet, MSL)	Groundwater Flow Direction and Gradient (ft/ft)
MW-2	3/9/2005	134.03	6.79	127.24	--
MW-3	3/9/2005	141.09	nm		
MW-4 ⁽¹⁾	3/9/2005	133.55	8.83	124.72	
MW-2	8/4/2005	134.03	15.65	118.38	--
MW-3	8/4/2005	141.09	nm		
MW-4	8/4/2005	133.55	16.41	117.14	
MW-2	11/10/2005	134.03	20.37	113.66	--
MW-3	11/10/2005	141.09	nm		
MW-4	11/10/2005	133.55	21.70	111.85	

Cumulative data since BAI has been monitoring the site.

TOC = Top of casing surveyed to mean sea level by FitzGerald & Associates, 3/13/91 and 4/12/93.

ft/ft = Foot per foot.

MSL = Mean sea level.

nm = Not measured, well inaccessible.

⁽¹⁾ Water in well may not have stabilized, therefore no groundwater flow direction or gradient was calculated.

⁽²⁾ Water in well may not have stabilized.



TABLE 2.
GROUNDWATER ANALYTICAL DATA FOR WELLS
18155 Sonoma Highway
Boyes Hot Springs, California

Well Number	Date Sampled	TPH as gasoline (mg/l)	TPH as diesel (mg/l)	BTEX ⁽¹⁾ (µg/l)	MTBE ⁽²⁾ EPA 8260 (µg/l)	1,2-DCA ⁽³⁾ EPA 8260 (µg/l)	Dissolved Zinc ⁽⁴⁾ (µg/l)
MW-2	1/8/1999	<0.05	<0.05	<0.5	<1.0	3.45	29.3
MW-2	5/11/1999	<0.05	<0.05	<0.5	<0.50	3.93	56.3
MW-2	1/16/2002	<0.05	nr	<0.50	<1.0	2.10	nr
MW-2	9/18/2002	<0.05	nr	<0.50	<1.0	1.74	nr
MW-2	12/12/2002	<0.05	nr	<0.50	<1.0	1.81	nr
MW-2	3/13/2003	<0.05	nr	<0.50	<1.0	1.59	nr
MW-2	6/13/2003	<0.05	nr	<0.50	<1.0	1.64	nr
MW-2	9/30/2003	<0.05	nr	<0.50	<1.0	2.76	nr
MW-2	3/5/2004	nr	nr	nr	nr	1.72	nr
MW-2	8/23/2004	nr	nr	nr	nr	1.76	nr
MW-2	3/9/2005	nr	nr	nr	nr	1.7	nr
MW-2	8/4/2005	nr	nr	nr	nr	1.32	nr
MW-2	11/10/2005	nr	nr	nr	nr	1.74	nr
MW-3	1/8/1999	<0.05	<0.05	<0.5	<1.0	<0.50	24.7
MW-3	5/11/1999	<0.05	<0.05	<0.5	<0.50	<0.50	67.7
MW-3	1/16/2002	<0.05	nr	<0.50	<1.0	<0.50	nr
MW-3	3/13/2003	<0.05	nr	<0.50	<1.0	<0.50	nr
MW-3	6/13/2003	<0.05	nr	<0.50	<1.0	<0.50	nr
MW-4	1/8/1999	<0.05	<0.05	<0.5	2.27	<0.50	47.6
MW-4	5/11/1999	<0.05	<0.05	<0.5	<0.50	<0.50	38.0
MW-4	1/16/2002	<0.05	nr	<0.50	<1.0	<0.50	nr
MW-4	9/18/2002	<0.05	nr	<0.50	<1.0	<0.50	nr
MW-4	12/12/2002	<0.05	nr	<0.50	<1.0	<0.50	nr
MW-4	3/13/2003	<0.05	nr	<0.50	<1.0	<0.50	nr
MW-4	6/13/2003	<0.05	nr	<0.50	<1.0	<0.50	nr
MW-4	9/30/2003	<0.05	nr	<0.50	<1.0	<0.50	nr
MW-4	3/5/2004	nr	nr	nr	nr	<0.50	nr
MW-4	3/9/2005	nr	nr	nr	nr	<0.50	nr
MW-4	8/4/2005	nr	nr	nr	nr	<0.50	nr
MW-4	11/10/2005	nr	nr	nr	nr	<0.50	nr

Cumulative data since BAI has been monitoring the site.

mg/l = Milligrams per liter.

µg/l = Micrograms per liter.

< = Not detected at specified laboratory reporting limit.

nr = Not requested.

⁽¹⁾ = Benzene, toluene, ethylbenzene, and xylenes.

⁽²⁾ = Methyl tertiary butyl ether.

⁽³⁾ = 1,2-dichloroethane. Other petroleum oxygenates and lead scavengers, through September 2003, analyzed using EPA Test Method 8260. Only those listed were detected.

⁽⁴⁾ = Dissolved cadmium, chromium, lead, and nickel were not detected when analyzed.



TABLE 3.
WELL CONSTRUCTION DETAILS
18155 Sonoma Highway
Boyce Hot Springs, California

Well Number	Date Installed	Installed By	Borehole Diameter (inches)	Total Borehole Depth (feet)	Screened Interval (feet)	Total Well Depth (feet)	Casing Diameter (inches)	Screen Slot Size (inches)	PVC Casing Elevation (MSL)	Well Condition
MW-1	2/28/1991	Van Houten	8	33.5	18.5 to 33.5	33.5	2	0.020	--	abandoned
MW-2	2/28/1991	Van Houten	8	42	20 to 40	40	2	0.020	134.03	abandoned
MW-3	3/1/1991	Van Houten	8	22.5	12.5 to 22.5	22.5	2	0.020	141.09	abandoned
MW-4	10/19/1992	Van Houten	8	23	5 to 23	23	2	0.020	133.55	abandoned

MSL = Mean sea level



TABLE 4. SUMMARY OF SOIL ANALYTICAL RESULTS

18155 Sonoma Highway
Boyes Hot Springs, California

Well Number	Date Sampled	Depth (feet)	TPH as gasoline (mg/kg)	TPH as diesel (mg/kg)	TPH as motor oil ⁽¹⁾ (mg/kg)	Oil & Grease (mg/kg)	Benzene (µg/kg)	Toluene (µg/kg)	Ethyl-Benzene (µg/kg)	Xylenes (µg/kg)	Ni (mg/kg)	Cd (mg/kg)	Cr (VD) (mg/kg)	Pb (mg/kg)	Zn (mg/kg)	VOCs ⁽²⁾ (µg/kg)	PCBs (mg/kg)
Boring-1 (4)	5-Jun-86	7	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Boring-1 (4)	5-Jun-86	12	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Boring-2 (4)	5-Jun-86	7	530	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Boring-2 (4)	5-Jun-86	12	14	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Waste Oil Tank--North End	27-Oct-86	bottom	--	--	22	--	--	--	--	--	--	--	--	--	--	--	<0.1
Waste Oil Tank--Middle	27-Oct-86	bottom	--	--	760	--	--	--	--	--	--	--	--	--	--	--	<0.1
Waste Oil Tank--South End	27-Oct-86	bottom	--	--	320	--	--	--	--	--	--	--	--	--	--	--	<0.1
Tank "B"--North End	27-Oct-86	bottom	62	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tank "B"--South End	27-Oct-86	bottom	27	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tank "C"--North End	27-Oct-86	bottom	18	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tank "C"--South End	27-Oct-86	bottom	43	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tank "D"--North End	27-Oct-86	bottom	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tank "D"--South End	27-Oct-86	bottom	18	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tank "E"--East End	27-Oct-86	bottom	34	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tank "E"--Middle	27-Oct-86	bottom	350	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tank "E"--West End	27-Oct-86	bottom	390	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Boring 1	1-Mar-91	5	1.3	ND	ND	ND	ND	ND	18	20	0.85	ND	ND	7	16	ND	--
Boring 1	1-Mar-91	10	ND	ND	ND	ND	ND	ND	ND	ND	0.97	ND	ND	5.7	18	ND	--
Boring 1	1-Mar-91	15	ND	ND	ND	ND	ND	ND	ND	ND	0.66	3	ND	11	40	ND	--
Boring 1	1-Mar-91	20	ND	ND	ND	ND	ND	ND	ND	ND	0.78	ND	ND	7.8	16	ND	--
Boring 2	1-Mar-91	5.5	ND	ND	ND	ND	ND	ND	ND	ND	0.58	ND	ND	4.6	10	ND	--
Boring 2	1-Mar-91	10	ND	ND	ND	ND	ND	ND	ND	ND	0.76	ND	ND	5.9	14	ND	--
Boring 2	1-Mar-91	15	ND	ND	ND	ND	ND	ND	ND	ND	1.2	ND	ND	6.5	10	ND	--
Boring 2	1-Mar-91	20	ND	ND	ND	ND	ND	ND	ND	ND	0.89	ND	ND	6.3	11	ND	--
MW-1	28-Feb-91	6	ND	ND	99	140	ND	ND	ND	ND	0.36	ND	ND	37	35	ND	--
MW-1	28-Feb-91	11	ND	ND	12	ND	ND	ND	ND	ND	1.2	ND	ND	6	22	ND	--
MW-1	28-Feb-91	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.3	11	ND	--
MW-1	28-Feb-91	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12	18	ND	--
MW-1	28-Feb-91	25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11	37	ND	--
MW-1	28-Feb-91	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.4	12	ND	--
MW-2	28-Feb-91	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.9	9	ND	--
MW-2	28-Feb-91	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	3	ND	5.1	18	ND	--
MW-2	28-Feb-91	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	ND	6.3	13	ND	--
MW-2	28-Feb-91	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9	14	ND	--
MW-2	28-Feb-91	25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10	20	ND	--
MW-2	28-Feb-91	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11	12	ND	--



TABLE 4. SUMMARY OF SOIL ANALYTICAL RESULTS

18155 Sonoma Highway
Boyes Hot Springs, California

Well Number	Date Sampled	Depth (feet)	TPH as gasoline (mg/kg)	TPH as diesel (mg/kg)	TPH as motor oil ⁽¹⁾ (mg/kg)	Oil & Grease (mg/kg)	Benzene (µg/kg)	Toluene (µg/kg)	Ethyl-Benzene (µg/kg)	Xylenes (µg/kg)	Ni (mg/kg)	Cd (mg/kg)	Cr (VI) (mg/kg)	Pb (mg/kg)	Zn (mg/kg)	VOCs ⁽³⁾ (µg/kg)	PCBs (mg/kg)
MW-3	1-Mar-91	5	ND	ND	ND	ND	ND	ND	ND	ND	0.94	2	ND	7.5	40	ND	--
MW-3	1-Mar-91	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.8	17	ND	--
MW-3	1-Mar-91	20	ND	ND	ND	ND	ND	ND	ND	ND	0.97	2	ND	11	14	ND	--
MW-4	1-Mar-91	5.5	ND	ND	ND	120	ND	ND	ND	ND	--	--	--	--	--	ND	--
MW-4	1-Mar-91	10.5	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	ND	--
West Wall #1	Apr-93	3.0	ND	ND	--	--	ND	ND	ND	ND	--	--	--	--	--	ND	--
South Wall #2 ⁽⁵⁾	Apr-93	3.5	140	220	980	--	1,900	ND	230	110	--	--	--	ND	--	ND	--
South Wall Bottom #3	Apr-93	8.0	ND	ND	--	--	ND	ND	ND	ND	--	--	--	--	--	ND	--
West Wall Bottom #4	Apr-93	9.5	ND	ND	--	--	ND	ND	ND	ND	--	--	--	--	--	ND	--
North Wall #5	Apr-93	6.0	ND	ND	--	--	ND	ND	ND	ND	--	--	--	--	--	ND	--
East Wall #6 ⁽⁵⁾	Apr-93	8.0	ND	ND	--	--	ND	ND	ND	ND	--	--	--	--	--	ND	--
East Wall Bottom #7 ⁽⁵⁾	Apr-93	15.0	1.5	4	35	--	ND	ND	9.7	12	--	--	--	--	--	ND	--
Bottom #8 ⁽⁶⁾	Apr-93	20.0	2.2	2.8	ND	--	24	4.4	13	18	--	--	--	--	--	ND	--
South Wall #9	Apr-93	4.5	ND	ND	--	--	ND	ND	ND	ND	--	--	--	--	--	ND	--
BB-1	20-Dec-01	8	ND	--	--	--	ND	ND	ND	ND	--	--	--	--	--	ND	--
BB-2	21-Dec-01	9	ND	--	--	--	ND	ND	ND	ND	--	--	--	--	--	1.58 ⁽²⁾	--
BB-2	21-Dec-01	14	ND	--	--	--	ND	ND	ND	ND	--	--	--	--	--	ND	--
BB-3	21-Dec-01	9	ND	--	--	--	ND	ND	ND	ND	--	--	--	--	--	ND	--
BB-4	20-Dec-01	8.5	ND	--	--	--	ND	ND	ND	ND	--	--	--	--	--	ND	--

Data collected prior to 2001 collected by previous consultants. References include Van Houten's reports titled, "Discharge Evaluation for Removal of Buried Fuel Tanks", dated December 22, 1986, "Initial Hydrogeologic Investigation" dated April 15, 1991, "Quarterly Groundwater Sampling and Downgradient Hydrogeologic Investigation", dated April 30, 1993, and "Soil Excavation", dated June 14, 1993.

Data collected during April 1993 was sampled on April 14, 15, 16, 20, 21, 22, 27, or 30, 1993, as reported in Van Houten's report titled, "Soil Excavation", dated June 14, 1993.

TPH = Total petroleum hydrocarbons

Ni = Nickel

Cd = Cadmium

Cr (VI) = Hexavalent chromium

Pb = Lead (total and/or organic)

Zn = Zinc

VOCs = Volatile organic compounds or chlorinated hydrocarbons

PCBs = Polychlorinated Biphenyls

mg/kg = Milligrams per kilogram, which is essentially equal to parts per million

µg/kg = Micrograms per kilogram, which is essentially equal to parts per billion

ND = Not detected above laboratory reporting limits

-- = Not analyzed

Oil and Grease analyses were non polar

⁽¹⁾TPH as motor oil or Total Heavy Hydrocarbons

⁽²⁾Trichlorofluoromethane

⁽³⁾includes 1,2-DCA analyses. Samples collected in 2001 were also analyzed for petroleum oxygenates and lead scavengers, none were detected.

⁽⁴⁾complete list of analyses unknown.

⁽⁵⁾these areas were subsequently excavated to remove contaminated soils, as stated in Van Houten's report titled "Soil Excavation", dated June 14, 1993.

⁽⁶⁾excavation was at the limit of equipment and excavation stability, as stated in Van Houten's report titled "Soil Excavation", dated June 14, 1993.



TABLE 5. GRAB GROUNDWATER ANALYTICAL DATA

18155 Sonoma Highway
Boyes Hot Springs, California

Boring Number	Sample Depth (feet bgs)	Date Sampled	TPH as gasoline (mg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (1) EPA 8260B (µg/l)	1,2-DCA (2) EPA 8260B (µg/l)	Tertbutanol (µg/l)
BB-1	20	20-Dec-01	<0.05	<0.50	<0.50	<0.50	<0.50	<1.00	1.06	<10.0
BB-1	45	20-Dec-01	<0.05	<0.50	<0.50	<0.50	<0.50	<1.00	<0.50	<10.0
BB-2	25	21-Dec-01	5.2	189	42.2	106	45.6	11.4	2.58	<10.0
BB-2	35	21-Dec-01	0.56	<0.50	<0.50	<0.50	0.810	2.04	1.18	250
BB-3	25	21-Dec-01	<0.05	2.61	3.50	0.73	2.19	4.87	0.94	<10.0
BB-4	18	20-Dec-01	0.28	<0.50	<0.50	<0.50	<0.50	1.60	<0.50	<10.0
SPA (3)	na	21-Dec-01	<0.05	<0.50	<0.50	<0.50	<0.50	<1.00	<0.50	<10.0

mg/l = milligrams per liter

µg/l = micrograms per liter

<0.50 = Not reported at or above the specified laboratory reporting limit.

(1) = Methyl tertiary butyl ether. Other petroleum oxygenates and lead scavengers analyzed for by EPA Test Method 8260B were not detected unless listed.

(2) = 1,2-dichloroethane.

(3) = Water sample collected directly from Sonoma Mission Inn Spa outflow pipe.



APPENDIX B

Clear Heart Drilling Letter



CLEAR HEART DRILLING, INC.
ENVIRONMENTAL, GEOTECHNICAL, HORIZONTAL & WATER WELL

February 21, 2006

To Whom It May Concern:

Re: 18155 Sonoma Highway, Boyes Hot Springs

Clear Heart Drilling, Inc. destroyed (3) 2" Monitor Wells to 25', 25' & 40'.

We over drilled the entire well casing and sand pack. We then grouted the entire surface with cement grout slurry as per water well standards.

Thank you,
Terri White
Office Manager
Clear Heart Drilling, Inc.

APPENDIX C

Copies of the Certificates of Disposal



IWM, Inc.

INTEGRATED WASTESTREAM MANAGEMENT, INC.
950 AMES AVENUE, MILPITAS, CA 95035
PHONE: 408.942.8955 FAX: 408.942.1499

CERTIFICATE OF DISPOSAL

Generator Name: Mary Gallo c/o Millie Gallo
Address: P.O. Box 4005
Santa Rosa, CA 95402
Contact: Terri Gallo
Phone: 707-939-9530

Facility Name: Continental Motors
Address: 18155 Sonoma Highway
Boyes Hot Spring, CA 95476
Facility Contact: Diana Dickerson, Brunsing Associates
Phone: 707-838-3027

IWM Job #:	<u>95750-DW</u>
Description of Waste:	<u>3 Drums of</u> <u>Non-Hazardous</u> <u>Water/Rinsate</u>
Removal Date:	<u>02/10/06</u>
Ticket #:	<u>SP100206-MISC</u>

Transporter Information

Name: IWM, Inc.
Address: 950 Ames Avenue
Milpitas, CA 95035
Phone: (408) 942-8955

Disposal Facility Information

Name: Seaport Refining & Environmental
Address: 675 Seaport Blvd
Redwood City, CA 94063
Phone: (650) 364-1024

IWM, INC. CERTIFIES THAT THE ABOVE LISTED NON-HAZARDOUS WASTE WILL BE TREATED AND DISPOSED AT THE DESIGNATED FACILITY IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.

William T. DeLon

Authorized Representative (Print Name and Signature)

02/10/06

Date

IWM, Inc.

INTEGRATED WASTESTREAM MANAGEMENT, INC.
950 AMES AVENUE, MILPITAS, CA 95035
PHONE: 408.942.8955 FAX: 408.942.1499

CERTIFICATE OF DISPOSAL

Generator Name: Mary Gallo c/o Millie Gallo
Address: P.O. Box 4005
Santa Rosa, CA 95402
Contact: Terri Gallo
Phone: 707-939-9530

Facility Name: Continental Motors
Address: 18155 Sonoma Highway
Boyes Hot Springs, CA 95476
Facility Contact: Diana Dickerson, Brunsing Associates
Phone: 707-838-3027

IWM Job #:	<u>95751-DS</u>
Description of Waste:	<u>3 Drums of</u> <u>Non-Hazardous</u> <u>Soil</u>
Removal Date:	<u>02/10/06</u>
Ticket #:	<u>RSVRL100206</u>

Transporter Information

Name: IWM, Inc.
Address: 950 Ames Avenue
Milpitas, CA 95035
Phone: (408) 942-8955

Disposal Facility Information

Name: Republic Services Vasco Road Landfill
Address: 4001 N. Vasco Road
Livermore, CA 94550
Phone: (925) 447-0491

IWM, INC. CERTIFIES THAT THE ABOVE LISTED NON-HAZARDOUS WASTE WILL BE TREATED AND DISPOSED AT THE DESIGNATED FACILITY IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.

William T. DeLon

Authorized Representative (Print Name and Signature)

02/10/06

Date